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Preface

This report contains the results of the research project NCDOT HWY 2006-09. The report describes the development, data, calibration and validation of a truck network model to estimate truck traffic to, from and within North Carolina. The network includes major and minor highways within North Carolina and major highways to other states in the U.S. Within North Carolina the traffic analysis zones are based on counties and sub-regions of metropolitan areas. As the network extends beyond North Carolina the traffic analysis zones increase from county size at the North Carolina border to economic districts in distant states. The base year for which the model is calibrated is 2006. The data used for model development and calibration mainly include the truck traffic classification count data collected by NCDOT in 2006 and 2007 and the 2002 Vehicle Inventory and Use Survey (VIUS) data. Another important data source is the 2002 Freight Analysis Framework (FAF2) data for North Carolina, which was provided by the USDOT Federal Highway Administration. This data set provides commodity truck flows from, to, and within North Carolina, which were mainly developed from the 2002 Commercial Flow Survey (CFS). Adjustments of the origin-destination data have been made for internal, short-haul, and empty truck trips. The resulting model provides an excellent foundation for future truck modeling and logistics analysis in North Carolina.

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